

## Claims

1 1. A method of providing a voltage from a DC-DC converter such that the voltage  
2 provided varies dependent on the current drawn from the DC-DC converter,  
3 comprising:  
4 sensing a current drawn from the DC-DC converter; and  
5 adjusting the voltage provided from the DC-DC converter such that the voltage  
6 is at a maximum current-voltage level when the current drawn is at a maximum load  
7 current level and the voltage is at a minimum current voltage level when the current  
8 drawn is at a minimum load current level.

1 2. The method of claim 1, further comprising adjusting the voltage provided from the  
2 DC-DC converter to provide a substantially linear voltage response with respect to  
3 current drawn between the maximum load current level and the minimum load current  
4 level.

1 3. The method of claim 1, further comprising adjusting the voltage provided from the  
2 DC-DC converter such that the voltage is at the minimum current voltage level when  
3 the current drawn is below the minimum load current level.

1 4. The method of claim 1, wherein the minimum load current level is the minimum  
2 current drawn by a known load device having a minimum current draw of greater than  
3 no current.

1 5. The method of claim 1, wherein the minimum load current level is a selected  
2 current level between but not including no current and the maximum load current  
3 level.

1 6. The method of claim 1, wherein sensing a current drawn from the DC-DC  
2 converter comprises sensing the voltage across a current sensing resistor connected in  
3 series with an output of the DC-DC converter.

1 7. A method of providing a voltage from a DC-DC converter such that the voltage  
2 provided varies dependent on the current drawn from the DC-DC converter,  
3 comprising:  
4 sensing an output current drawn from the DC-DC converter;  
5 converting the sensed output current to a voltage signal indicating the sensed  
6 output current;  
7 adjusting the voltage signal indicating the sensed output current such that the  
8 voltage is at a minimum level when the current drawn is at a maximum load current  
9 level and the voltage is at a maximum level when the current drawn is at a minimum  
10 load current level; and  
11 adding the adjusted voltage signal to the voltage provided by the DC-DC  
12 converter.

1 8. A method of providing a voltage from a DC-DC converter such that the voltage  
2 provided varies dependent on the current drawn from the DC-DC converter,  
3 comprising:  
4 sensing an output current drawn from the DC-DC converter;  
5 converting the sensed output current to a voltage signal indicating the sensed  
6 output current;  
7 adjusting the voltage signal indicating the sensed output current such that the  
8 voltage is at a maximum level when the current drawn is at a maximum load current  
9 level and the voltage is at a minimum level when the current drawn is at a minimum  
10 load current level; and  
11 subtracting the adjusted voltage signal from the voltage provided by the DC-  
12 DC converter.

1 9. A DC-DC converter, comprising:

2 a module operable to sense a current drawn from the DC-DC converter and  
3 further operable to adjust the voltage provided from the DC-DC converter such that  
4 the voltage is at a maximum current voltage level when the current drawn is at a  
5 maximum load current level and the voltage is at a minimum current voltage level  
6 when the current drawn is at a minimum load current level.

1 10. The DC-DC converter of claim 9, wherein adjusting the voltage in response to the  
2 sensed current is performed via hardware.

1 11. The DC-DC converter of claim 9, wherein adjusting the voltage in response to the  
2 sensed current is performed via software executing on a processor.

1 12. The DC-DC converter of claim 9, wherein sensing a current drawn from the DC-  
2 DC converter comprises measuring the voltage across a current sensing resistor  
3 connected in series with an output of the DC-DC converter.

1 13. The DC-DC converter of claim 9, wherein the module is further operable to  
2 provide a substantially linear voltage response with respect to current drawn between  
3 the maximum load current level and the minimum load current level.

1 14. The DC-DC converter of claim 9, wherein the module is further operable to  
2 provide a voltage at the minimum current voltage level when the current drawn is  
3 below the minimum load current level.

1 15. The DC-DC converter of claim 9, wherein the minimum load current level is the  
2 minimum current drawn by a known load device having a minimum current draw of  
3 greater than no current.

